

CLAIMS:

1. In a computer network allowing communication between
5 a host computer and a plurality of remote user computers, a
method for packaging 3D animated content data for distribution
to the remote user computers over a network connection, the
method comprising:

identifying a set of pre-load data for being delivered over
10 the network connection before playback of the 3D animated
content;

storing the pre-load data in a pre-load file;

identifying a set of streaming data for being streamed over
15 the network connection during playback of the 3D animated
content;

identifying a data rate available to the remote user
computer for streaming the streaming data;

identifying a duration of a scene;

20 storing the streaming data for the scene in a stream file
associated with the scene, the stream file being of a size
calculated from the identified data rate and the duration of the
scene; and

25 streaming the stream file over the network connection during
playback of the scene, the stream file calculated to finish
downloading by the remote user computer prior to the end of the
playback of the scene.

2. The method of claim 1, wherein the streaming data is
animation data.

30 3. The method of claim 1, wherein the streaming data in
the stream file is packaged into a plurality of streamable
blocks.

4. The method of claim 3 further comprising:

5 identifying a time in which each streamable block is required by the remote computer during playback of the scene; and

determining the position of each block in the stream file based on the identified time, the position calculated to allow the remote user computer to download the block prior to the time the block is required.

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5. The method of claim 1, wherein the pre-load file includes a header portion and a body portion, the header portion including a directory of files used for playing the 3D animated content, and the body portion including the pre-load data.

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6. The method of claim 5, wherein the header portion includes a type code and a location code, the type code for indicating a file type of each file listed in the directory, and the location code for indicating a file location of each file
20 listed in the directory.

7. The method of claim 1 further comprising pre-loading the pre-load file before playback of the 3D animated content.

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8. The method of claim 1, wherein the 3D animated content is a multipath movie with a plurality of plot alternatives, the method further including streaming additional stream files associated with each plot alternative capable of being selected by a user after the stream file associated with the scene is
30 loaded by the remote computer.

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9. In a computer network allowing communication between a host computer and a plurality of remote user computers, a system for packaging 3D animated content data for distribution

to the remote user computers over a network connection, the system comprising:

5 means for identifying a set of pre-load data for being delivered over the network connection before playback of the 3D animated content;

means for storing the pre-load data in a pre-load file;

10 means for identifying a set of streaming data for being streamed over the network connection during playback of the 3D animated content;

means for identifying a data rate available to the remote user computer for streaming the streaming data;

means for identifying a duration of a scene;

15 means for storing the streaming data for the scene in a stream file associated with the scene, the stream file being of a size calculated from the identified data rate and the duration of the scene; and

20 means for streaming the stream file over the network connection during playback of the scene, the stream file calculated to finish downloading by the remote user computer prior to the end of the playback of the scene.

10. The system of claim 9, wherein the streaming data is
25 animation data.

11. The system of claim 9, wherein the means for storing the streaming data includes means for packaging the streaming data into a plurality of streamable blocks.

30 12. The system of claim 11 further comprising:

means for identifying a time in which each streamable block is required by the remote user computer during playback of the scene; and

means for determining the position of each block in the stream file based on the identified time, the position calculated
5 to allow the remote user computer to download the block prior to the time the block is required.

13. The system of claim 9 wherein the 3D animated content is a multipath movie with a plurality of plot alternatives, the
10 system further including means for streaming additional stream files associated with each plot alternative capable of being selected by a user after the stream file associated with the scene is loaded by the remote computer.

15 14. In a computer network allowing communication between a host computer and a plurality of remote user computers, a system for packaging 3D animated content data for distribution to the remote user computers, the system comprising:

20 a pre-load file storing a set of pre-load data for being delivered over the network connection before playback of the 3D animated content;

a stream file storing the streaming data for being streamed over the network connection during playback of the 3D animated content;

25 a mass storage device for storing the pre-load file and the stream file; and

a production module in communication with the mass storage device, the production module including logic for:

30 identifying the pre-load data for the 3D animated content and the streaming data for a scene of the 3D animated content; and

storing the identified pre-load data in the pre-load file and the streaming data for the scene in the stream file associated with the scene.

15. The system of claim 14, wherein the streaming data is
animation data.

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16. The system claim 14, wherein the stream file includes
a plurality of streamable blocks for storing the streaming data.

10 17. The system of claim 16, wherein the streamable blocks
is allocated a position in the stream file based on a time in
which each streamable block is required by the remote user
computer during playback of the scene, the position calculated
to allow the remote user computer to download the block prior to
the time the block is required.

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18. The system of claim 14, wherein the pre-load file
includes a header portion and a body portion, the header portion
including a directory of files used for playing the 3D animated
content, and the body portion including the pre-load data.

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19. The system of claim 18, wherein the header portion
includes a type code and a location code, the type code for
indicating a file type of each file listed in the directory, and
the location code for indicating a file location of each file
25 listed in the directory.

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20. The system of claim 14 further including an Internet
connection for delivering the pre-load file and the stream file
to the remote user computers.

21. The system of claim 20 further including a projector
module for loading the pre-load file and streaming the stream
file for playing the animated content.

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